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## **Amendments to Claims:**

This listing of claims will replace all prior versions and listings in the application:

## **Listing of Claims:**

1-98.(Canceled)

99. (Currently Amended) The pharmaceutical composition according to claim 116, wherein the dendritic cells express an amount of the fragmented modified antigen to provide between about 1 to 100 micrograms of the fragmented modified antigen in said pharmaceutical composition.

100. (Canceled)

101. (Currently Amended) An *in vitro* composition comprising mature dendritic cells presenting fragmented expressing modified antigen and derived from an *in vitro* culture of an enriched and expanded population of proliferating dendritic cell precursors by a method comprising:

providing a tissue source comprising dendritic cell precursors; treating the tissue source comprising dendritic cell precursors to increase the proportion of dendritic cell precursors;

culturing the tissue source on a substrate in a culture medium comprising GM-CSF to obtain cell aggregates comprising proliferating dendritic cell precursors; and

subculturing the cell aggregates at least one time to enrich the proportion of dendritic cell precursors;

serially subculturing the cell aggregates one or more times to enrich the proportion of dendritic cell precursors; and

continuing to culture the dendritic cell precursors for a period of time to allow them to mature into mature dendritic cells;

wherein the dendritic cells are cultured *in vitro* in the presence of an antigen for a time sufficient to allow the antigen to bind to the dendritic cells and wherein the dendritic cells process the antigen to produce a modified antigen which is expressed by the dendritic cells be fragmented and presented.

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- 102-103. (Canceled)
- 104. (Previously Presented) The composition according to claim 101, wherein the tissue source is blood.
- 105. (Previously Presented) The composition according to claim 101, wherein the tissue source is bone marrow.
- 106. (Previously Presented) The composition according to claim 101, wherein GM-CSF is present in the culture medium at a concentration of about 1-1000 U/ml.
- 107. (Previously Presented) The composition according to claim 104, wherein the concentration of GM-CSF in the culture medium is about 30-100 U/ml.
- 108. (Previously Presented) The composition according to claim 105, wherein the concentration of GM-CSF in the culture medium is about 500-1000 U/ml.
- 109. (Previously Presented) The composition according to claim 101, wherein the cell aggregates are blood derived and are subcultured from about one to five times.
- 110. (Previously Presented) The composition according to claim 101, wherein the cell aggregates are subcultured one to five times.
- 111. (Previously Presented) The composition according to claim 101, wherein the culture medium is selected from the group consisting of RPMI 1640, DMEM and  $\alpha$ -MEM, and wherein the culture medium is supplemented with serum.
- 112. (Previously Presented) The composition according to claim 104, wherein the tissue source is treated to remove red blood cells.
- 113. (Previously Presented) The composition according to claim 105, wherein the tissue source is treated to remove B cells and granulocytes.
  - 114-115. (Canceled)
- 116. (Previously Presented) A pharmaceutical composition comprising a therapeutically effective amount of the composition according to claim 101.
  - 117-119. (Canceled)

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- 120. (Currently Amended) An in vitro composition comprising mature dendritic cells derived from an in vitro culture of a population of enriched and expanded proliferating precursor cells, wherein said dendritic cells are contacted in vitro with antigen in the presence of GM-CSF for a sufficient time to allow the antigen to bind to the dendritic cells, wherein the dendritic cells process the antigen to produce a modified antigen which is expressed by the dendritic cells for antigen fragmentation and presentation to occur.
  - 121-141. (Cancelled)
- 142. (Previously Presented) The composition according to claim 101, wherein the dendritic cell precursors are human.
- 143. (Previously Presented) The composition of dendritic cell precursors according to claim 142, wherein the dendritic cell precursors are obtained from blood.
- 144. (Previously Presented) The composition of dendritic cell precursors according to claim 142, wherein the dendritic cell precursors are obtained from bone marrow.